

Attorney's Docket: HOE96/HQ15J  
Serial No.: 08/994,479  
Art Unit 1751  
Response to Office Action Mailed June 27, 2006

## REMARKS

The Office Action mailed June 27, 2006 has been carefully considered together with each of the references cited therein. The amendments and remarks presented herein are believed to be fully responsive to the Office Action. Accordingly, reconsideration of the present Application in view of the following remarks is respectfully requested.

As requested, Applicant has attached to this response a copy of the previously filed (PTO Receipt noted on January 30, 2001) two page Preliminary Amendment, which was referred to in Item 1 of the Examiner's action, to provide a record copy for the Office.

Applicant has amended the Application to more clearly recite what Applicant believes to be the invention. Claims 1, 11 and 23 were amended to more clearly recite that the ingredient comprises a reaction product which is obtained by depositing a solution of an acidic polycarboxylate onto an alkaline silicate and drying. Support for these amendments may be found in originally filed claims 1 and 11 and claim 16. Claims 2, 3, 10, and 14 were amended to attend to formal matters. Support for the amendments to claims 2, 3, 10, and 14 may be found in originally filed claims 2, 3, 10 and 14. These amendments are fully supported by the Specification and the originally filed claims. It is believed that no new matter has been introduced and that no new search is required.

Applicant's invention relates to the discovery that pulverulant detergents and cleaning detergents can be improved by the use of an ingredient which is produced by depositing a solution of an acidic polycarboxylate onto an alkaline silicate and subsequently drying the ingredient. When the ingredient of the present invention is incorporated into detergent preparations, significant reduction in ash production results. In Applicant's Specification at page 19, Table 3 presents a side-by-side comparison of detergents containing conventional components (Examples 4 and 5) with detergents containing the inventive ingredient prepared as recited in amended claim 1 (Examples 6 and 7). In Table 3, ash deposits on five standard fabrics are shown after 25 washes. The inorganic ash deposits were determined by incinerating the standard fabric. It is clear from the data shown in Table 3 that the individual and

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the average incrustation values of the pulverulent laundry detergents comprising the novel ingredient of the instant invention resulted in significantly lower incrustation values. (Table 3 is reproduced hereinbelow.)

Table 3: Fabric Incrustation (% Ash)

	% Ash After 25 Washes			
	Example 4	Example 6	Example 5	Example 7
Terry (Vossen)	2.71	1.12	2.38	2.08
Cotton (Empa)	1.84	0.97	2.05	1.41
Cotton (WFK)	3.93	3.51	4.80	3.91
PE/Co (WFK)	2.04	0.96	2.03	1.31
Double rib (WFK)	1.79	0.78	1.51	1.41
Average Value	2.46	1.47	2.55	2.02

Claims 1-6, 8-16, 23, 25, and 26 were rejected under 35 U.S.C. §102(e) as being anticipated by Wilkinson, US Patent No. 5,736,502, hereinafter referred to as the '502 Patent. The rejection of claim 1 as amended under 35 U.S.C. §102(e) as being anticipated by Wilkinson, US Patent No. 5,736,502 should be withdrawn for the reason that the '502 Patent does not disclose all the elements of Applicant's invention. The '502 Patent discloses granular detergent compositions which are prepared by mixing a polyacrylate in solution with a spray dried powder which was prepared from large number of ingredients, not including layered silicate, see column 11, Example 3 and lines 25-33. The layered silicate is combined together with further components in a second step. Thus, the '502 Patent fails to disclose any ingredients of the detergent which are obtained by disposing a polyacrylate or polycarboxylate solution directly on a layered silicate and subsequently drying the ingredient. Anticipation is established only when a single prior art reference discloses, expressly or under principles of inherency, each and every element of a claimed invention. Clearly, the '502 Patent is directed to a detergent which is formed in the absence of an ingredient obtained as defined in the instant invention and can not be said to anticipate the instant claims which are directed to detergents comprising the novel

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ingredient obtained by contacting a layered silicate with a polycarboxylate solution and subsequently drying. Therefore, the rejection of claim 1, as amended under 35 USC § 102(e) as being anticipated by US Patent 5,736,502 should be withdrawn.

The rejection of claims 2-6, 8-10 as amended under 35 USC § 102(e) as being anticipated by US Patent 5,736,502 should be withdrawn for the reasons given in support of claim 1 from which they depend.

The rejection of claim 11, and its dependencies claims 12-16 as amended under 35 USC § 102(e) as being anticipated by US Patent 5,736,502 should be withdrawn for the reasons given in support of claim 1, and for the reason that nowhere in the '502 Patent is there disclosed a process for the preparation of a pulverulent laundry and cleaning detergent ingredient which comprises depositing a solution of an acidic polycarboxylate onto an alkaline silicate and drying.

The rejection of claims 23 and its dependencies claims 25 and 26, as amended under 35 USC § 102(e) as being anticipated by US Patent 5,736,502 should be withdrawn for the reasons given in support of claim 1, and for the reason that nowhere in the '502 Patent is there disclosed a process for using a pulverulent laundry and cleaning detergent ingredient which comprises depositing a solution of an acidic polycarboxylate onto an alkaline silicate and drying.

Claims 1-7, 10, 23, 24, 26, and 27 were rejected under 35 U.S.C. §102(e) as being anticipated by Goldstein, US Patent No. 5,663,133 ('133 Patent). The rejection of claim 1, as amended under 35 U.S.C. §102(e) as being anticipated by Goldstein, US Patent No. 5,663,133, should be withdrawn for the reason that the '133 patent fails to disclose all of the elements of the invention. In column 26, Example III of the '133 Patent discloses an automatic dishwashing detergent having 17% silicate and 6% polyacrylate polymer and other components. In all of the examples, the detergents are prepared exactly the same except that the nonionic surfactant is first mixed with the solid benzoyl peroxide particle and then added to the other ingredients, or the nonionic surfactant is added to the other ingredients without the benzoyl peroxide. The Example III disclosed in column 26 of the '133 patent is silent on any solution of an acidic polycarboxylate being added to a layered silicate and drying. Thus, the '133 Patent fails to disclose any ingredients of the

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detergent which are obtained by disposing a polyacrylate or polycarboxylate solution directly on a layered silicate and subsequently drying the ingredient. Anticipation is established only when a single prior art reference discloses, expressly or under principles of inherency, each and every element of a claimed invention. Clearly, the '133 Patent is directed to a detergent which is formed in the absence of an ingredient obtained as defined in the instant invention and can not be said to anticipate the instant claims which are directed to detergents comprising the novel ingredient obtained by contacting a layered silicate with a polycarboxylate solution and subsequently drying. Therefore, the rejection of claim 1, as amended under 35 USC § 102(e) as being anticipated by US Patent 5,663,133 should be withdrawn.

The rejection of claims 2-7 and 10 as amended under 35 USC § 102(e) as being anticipated by US Patent 5,663,133 should be withdrawn for the reasons given in support of claim 1 from which they depend.

The rejection of claims 23 and its dependencies claims 24, 26 and 27, as amended under 35 USC § 102(e) as being anticipated by US Patent 5,663,133 should be withdrawn for the reasons given in support of claim 1, and for the reason that nowhere in the '133 Patent is there disclosed a process for using a pulverulent laundry and cleaning detergent ingredient which comprises depositing a solution of an acidic polycarboxylate onto an alkaline silicate and drying.

Claims 1-16 and 23-27 were rejected under 35 U.S.C. § 102(e) as anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as being unpatentable over Baillie et al. (U.S. Patent No. 5,773,400), herein referred to as the '400 Patent. The rejection of claim 1 as amended under 35 U.S.C. § 102(e) as anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as being unpatentable over Baillie et al. (U.S. Patent No. 5,773,400) should be withdrawn for the reason that the '400 Patent does not disclose all of the elements of Applicant's invention, and the '400 patent does not disclose any ingredients of the detergent which are obtained by disposing a polyacrylate or polycarboxylate solution directly on a layered silicate and subsequently drying the ingredient, and the '400 Patent is silent any unexpected benefit in reduced incrustation in using a detergent having an ingredient which is obtained according to amended claim 1 of the subject application. Although the '400

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Patent discloses detergent compositions prepared by mixing 10% crystalline layered silicate and 4% acrylic/maleic acid copolymer as well as surfactants, and other conventional detergent components, none of the components are obtained according to the instant invention. Irrespective of whether the copolymer is introduced as a solid or a liquid, as disclosed in lines 53-59, solid agglomerates which do not contain any silicate are produced following the introduction of the copolymer; and, in a second step, the thus produced solid agglomerates are combined with other ingredients, including the layered silicate. Thus, there is no teaching or suggestion in the '400 Patent that the acrylic/maleic acid copolymers combined directly with any type of silicate, and particularly no teaching or suggestion that a solution of the acrylic/maleic acid copolymer is deposited on the silicate and dried, prior to any combination of the obtained ingredient with any other detergent components. Applicant has demonstrated unexpected benefits for a combination of Applicant's novel detergent ingredient which was obtained by depositing a solution of the acrylic/maleic acid copolymer is deposited on the silicate and dried. Applicant's examples as shown in Table 3 of Applicant's Specification and discussed herein above clearly showed that significant difference in performance were provided by Applicant's materials, even when the chemical composition and the coating rate were identical and the granules only differed by Applicant's deposition and drying step. Such results were clearly unexpected and not suggested to anyone skilled in the art by the broad disclosure of the '400 Patent. Furthermore, there is nothing in the '400 Patent to teach or suggest the method for obtaining applicant's novel ingredient or the desirability for combining that ingredient with other detergent components. A combination is not obvious unless the art teaches the desirability of the combination. Obvious to try is not the standard of 35 U.S.C. §103. No one skilled in the art would be motivated by the '400 Patent to arrive at Applicant's compound. Disregard for the unobviousness of the results of obvious to try experiments disregards the "invention as a whole" concept of §103. Obviousness is not determined by the application of hindsight or retrospect, with the knowledge of the Applicant's discovery. Rather it is determined as of the time of the invention, based solely on the knowledge disclosed by the prior art as a whole. Therefore the rejection of claim 1 as amended under 35

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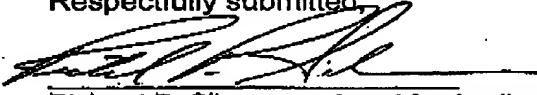
U.S.C. §102(e) as anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as being unpatentable over Baillely et al. (U.S. Patent No. 5,773,400) should be withdrawn for the reason that Baillely et al. neither disclose all of the elements of the instant invention as claimed, and no one skilled in the art would be motivated to employ Applicant's ingredient, which is obtained by depositing of a solution of an acidic polycarboxylate on a silicate and drying step, with other typical detergent ingredients the combination of which is not disclosed in the reference, and for the reason that Applicant discovered unexpected superior performance for Applicant's novel ingredient obtained according to the instant invention, even when their compositions were identical.

The rejection of claims 2-15 as amended under 35 U.S.C. §102(e) as anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as being unpatentable over Baillely et al. (U.S. Patent No. 5,773,400) should be withdrawn for the reasons given in support of claim 1, from which they depend.

The rejection of claims 23 and its dependencies claims 24, 26 and 27, as amended under 35 U.S.C. §102(e) as anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as being unpatentable over Baillely et al. (U.S. Patent No. 5,773,400) should be withdrawn for the reasons given in support of claim 1, and for the reason that nowhere in the '400 Patent is there disclosed a process for using a pulverulent laundry and cleaning detergent ingredient which comprises depositing a solution of an acidic polycarboxylate onto an alkaline silicate and drying.

It is respectfully submitted that, in view of the above remarks the rejections under 35 U.S.C. §102 and §103 should be withdrawn and that this application is in a condition for an allowance of all pending claims. Accordingly, favorable reconsideration and an allowance of all pending claims are courteously solicited.

Respectfully submitted,



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Attachment: Copy of Earlier Filed Preliminary Amendment

REF: Serial No. 8/994,479  
Filed. 01/30/2001  
Group 175T  
Examiner BOYER, C.  
Patent

Attorney's Docket No. HOE96/H015J

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re new U.S. patent application of : Attn: Box PATENT APPLICATION  
Günther SCHIMMEL et al. :  
Serial No.: To Be Assigned :  
Filed: December 19, 1997 :  
For: PULVERULENT LAUNDRY AND :  
CLEANING DETERGENTS :  
INGREDIENT : December 19, 1997

**COPY**PRELIMINARY AMENDMENT

Assistant Commissioner for Patents  
Washington, DC 20231  
Dear Sir:

Preliminary to the examination of the above-identified application, please amend the application as follows:

In the Claims:

Claim 3, line 2, delete "or 2".

Claim 4, line 2, delete "one or more of claims 1 to 3" and substitute therefor

--claim 1--.

Claim 5, line 2, delete "one or more of claims 1 to 4" and substitute therefor

--claim 1--.

Claim 6, line 2, delete "one or more of claims 1 to 5" and substitute therefor

--claim 1--.

Claim 7, line 2, delete "one or more of claims 1 to 6" and substitute therefor

--claim 1--.

Claim 8, line 2, delete "one or more of claims 1 to 6" and substitute therefor

--claim 1--.

Claim 10, line 2, delete "one or more of claims 1 to 9" and substitute therefor --claim 1--.

Claim 13, line 1, delete "or 12".

Claim 14, lines 1-2, delete "one or more of claims 11 to 13" and substitute therefor --claim 11--.

REF: Serial No 8/994,479  
Filed 01/30/2001  
Group 175  
Examiner Boyer, C.

In re new U.S. patent application of:  
Gunther SCHIMMEL et al.  
Serial No.: To Be Assigned  
Filed: December 19, 1997  
Page 2

**COPY**

Claim 15, lines 1-2, delete "one or more of claims 11 to 14" and substitute therefor --claim 11--.

Claim 16, lines 1-2, delete "one or more of claims 11 to 15" and substitute therefor --claim 11--.

Please cancel Claims 17-22 and add the following new Claims 23-27.

23. A process for using the reaction product of an alkaline silicate and an acidic polycarboxylate, said process comprising combining said product with at least one component selected from the group consisting of surfactant, bleach, washing alkali, dispersant, enzyme, builder, polyelectrolyte and sodium tripolyphosphate.

24. The process of Claim 23 wherein said combining is a dry mixing process.

25. A laundry detergent made by the process of Claim 23.

26. A cleaning detergent made by the process of Claim 23.

27. A dishwashing detergent made by the process of Claim 23. --

REMARKS

The claims have been amended to delete the improper multiple dependent claims so as to reduce the application fees, and to place the application in condition for allowance. An early allowance is respectfully requested.

Respectfully submitted,

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